DOCUMENT RESUME

ED 173 724 CG 013 631

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TITLE Biological Differences and Social Equality: A Revolutionary Idea.
PUB DATE Aug 78
NOTE 13p.; Paper presented at the Annual Convention of the American Psychological Association (Toronto, Ontario, Canada, August, 1978)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Bias; *Biological Influences; Evolution; Interdisciplinary Approach; Justice; Researchers; *Scientific Research; *Sex (Characteristics); Social Factors; *Social Science Research; Values
IDENTIFIERS *Equality; *Social Equity

ABSTRACT

Barriers to equitable scientific consideration of biological differences are being noticed by many scholars considering social equity. Many have observed the alliance and contamination of the biological and social sciences, reinforcing cultural biases. The uncritical acceptance and application of bio-medical models also produce inadequate methods of studying human behavior. Both the mechanistic and organic world views are compatible with an egalitarian view of biological differences, criticizing domination, thus contradicting the philosophy of the experimental method of domination and manipulation. Social Darwinism views social inequity as a natural evolutionary process selecting the fittest for the future. Critics note how man differs from other species and machines, and the prescriptive rather than descriptive nature of the theory of evolution. The more promising solutions to such shortcomings involve interdisciplinary studies of values, social equality, and justice, which will provide a framework for research, decision guidelines about research topics, may define social problems, and provide a framework for social policy recommendations. (Author/LS)

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"BIOLOGICAL DIFFERENCES AND SOCIAL EQUALITY": A REVOLUTIONARY IDEA

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Paper presented on the Symposium on "Biology, Psychology, and Social Policy," at the American Psychological Association, Toronto, Canada, August, 1978.

CG013631

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"Biological Differences and Social Equality": A Revolutionary Idea

The ideas I want to share with you today developed during my participation in an interdisciplinary, summer institute which had as its theme, "Biological Differences and Social Equality"[1]. My thinking has obviously been influenced by my colleagues from the other disciplines, and I want to acknowledge at the outset that I am most grateful to meritocracy, credentialism, and all those other systems of social inequality which gave me the opportunity to study in California this summer.

The conceptualization of biological differences and (or with) social equality is a revolutionary idea--differences attributed to biologically defined race, sex, age, or physical and mental "fitness" have historically been associated with social policies of inequality rather than equality. However, it takes only a moment's, philosophical pause to reason that no particular social policy is explicitly implied by the "discovery" of a difference, biological or otherwise. Biological identity need not be a prerequisite for political equality. What difference a difference makes is definitively determined by the social community, and we scientists play a critical role in this process (vanHoorn & Verhave, 1977). In the absence of any logical imperative, however, a number of barriers to the just and equitable scientific consideration of biological differences are becoming increasingly evident to many scholars investigating biological differences and concerned with social equality.

One such barrier, which has recently received considerable attention, is the biological and social sciences' alliance with, and contamination by, the social myths and ideologies which serve the political and economic powers within the society. We scientists tend to find precisely those kinds of biological differences that cultural idealogies would expect us to find (Shields, 1975); biases have been introduced into the investigations of race and sex differences in regard to: (a) the statement of the questions; (b) the methods employed; (c) the conclusions and interpretations drawn, and limits have been imposed upon the scientific inquiry because the race and/or sex of those being studied is typically different from that of the persons conducting the inquiry

(Sherif, 1977). Many excellent analyses of this barrier in various disciplines are now available (Fee, 1974; Lloyd, 1975; Huber, 1976; Rosenberg, 1975; Whitbeck, 1974; Shields, 1975; Quinn, 1977). In sum, one finds that in many sciences as in psychology, there is a growing awareness of the science within its historical context and of our "intellectual heritage" in which biological differences have been used to justify and rationalize social policies of inequality and social stigmatization of inferiority of minority persons and women (Hart, 1977; Goldsby, 1977; Hirsch, 1970, 1978; Maccoby & Jacklin, 1974; McGuire & Hirsch, 1977; vanHoorn & Verhave, 1977; Vaughter, 1976).

A second barrier to the alliance of biological differences and social equality is the behavioral and social sciences' uncritical acceptance and often ill-advised applications of bio-medical models for understanding human behavior. Carolyn Sherif (1977), in an exceptional piece of scholarship, recently anticipated my own thoughts on this subject: our tedious and often pious imitations of the bio-medical models have left us with an impotent set of tools for understanding the behavior of human beings--an unyielding commitment to reductionism, an ahistorical approach to our subject matter, a naive overcommittment to "objective" language and the "experimental method", and the mystification of "objective" truth. Historically, cognitive and developmental psychology have been the most vocal in pointing out the inadequacies of the bio-medical models (Overton & Reese, 1973). But their particular contribution to the inequitable study of race and sex differences is becoming undeniably evident--these models have left us "knee-deep in analogies," re-constructing familiar themes of the "naturalness" of the contemporary social order (Bart, 1977; Sherif, 1977; Tobach, 1978).

Taking these analyses a step further, I would ask us to come to grips with what it means that the bio-medical perspectives of science reflect a particular world view with a particular set of values. In a forthcoming book which examines the rise of modern science and its associated value system the historian Carolyn Merchant (in preparation) reports that:

> ... the rise of modern science was intimately linked to a world view in which re-structuring reality as a machine sanctioned

> the domination and exploitation of natur .... The substitution of the mechanical for the organic metaphor in all facets of life spelled the death of nature as a living being and sanctioned the manipulations of the dead inert parts of the resultant corpse (page 7).

This mechanical world view, was, nonetheless, "more compatible with the logic of improvement, progress, and profitmaking."

An alternative world view, the organic view, historically associated with the notions of holism, organicism, and vitalism, was reawakened by the ecology and feminist movements. In both movements, "ecological balance," "energy flow," "community," "shared resources," "basic technologies," and "cooperation" began to take precedence over the old Darwinian metaphors of "struggle for survival," "fitness," "competition," and "aggression." The ecology and feminist movements dovetail because:

> Both press for an egalitarian point of view and assign value to the leveling of hierarchies. Both are sharply critical of domination and warn of the costs of competition and aggression as a modus-operandi in society and nature (page 6).

In contrast, the experimental method, which has defined the "proper methods" of science, is rooted in a philosophy of domination, the objective of which is to control, and lends itself readily to animal and machine metaphors which has been "extremely beneficial to the market economy" (Merchant, in preparation).

What I am proposing is that some world views associated with some value systems are more compatible than others with an equitable consideration of biological differences, and they define the boundaries of both the methods and theories of the science. Indeed, the mechanistic and organic views are evident in contemporary conceptualizations of the relationship between genes, the evolutionary processes, and human behaviors. The hereditarian view, a "peculiar American version" of the evolution process (Rosenberg, 1977; Sherif, 1977; Tanner & Zihlman, 1976), places little emphasis on Darwin's original contribution (i.e., the mechanisms to explain the origins of the different species) and places most all the emphasis on the continuity in

evolutionary developments (i.e., similarities among species). The hereditarian perspective is based upon the reductionistic view that genes are the ultimate unit of living matter and as such yield the ultimate explanation of any phenomenon. Tobach (1976, 1978) has often explicated an alternative approach, the levels of organization and integration view, which is well represented in comparative and developmental psychology today (Schneirla, 1970; Washburn, 1978). This view incorporates all levels of functioning of the organism--the biophysical-biochemical, the intersystemic-physiological, the behavioral and the social levels of organization--including the genetic processes by "integrating them in the historic development of the species without seeing genes as the ultimate explanation (Tobach, 1976).

The shortcomings of the type of reductionism so well exemplified in sociobiology have been articulated by a number of critics (Barkow, 1978; Hirsch, 1978; Monod, 1971; Sherif, 1977; Tobach, 1978; Washburn, 1978). But two points are worth repeating, perhaps ad nauseam: (a) The hereditarian proudly asserts that in their model the subjective state of the organism and the purposiveness of the animal's behavior are not to be considered--the animal, human or nonhuman, is simply "acting out the imperative of gene transmission" (Sherif, 1977). But the process of self-awareness, language, and purposiveness are precisely the types of characteristics which critically differentiate human beings from other species (and from machines) (Washburn, 1978). (b) Also, the theory of evolution itself is seductively prescriptive rather than descriptive--a property which is undoubtedly rooted in the theory's conception (Hofstadten, 1959). Darwin's theory of evolution emerged in a sociocultural milieu, of the 19th Century which nourished the "wedding" of racism, sexism, and a doctrine of struggle (Harris, 1968). Darwin's struggle for survival was operating in every sphere of life and all the changes of the time--slavery, national, class, sex, and caste privilege, and national expansion--could be subsumed under a single law of evolution to "complete the biologicalization of history" (Harris, 1968).

According to social Darwinism, then, social inequalities are defined as the "natural" state of things: some individuals are more fit, and the fittest will have more than their "fair share" of resources. This is how it should be

since distribution of resources is naturally based upon the evolutionary merit ("inclusive fitness") of traits and behaviors. The argument reduces the concept of selection down to "individual net profit, pure and simple" (Sahlin, 1976). The prescription, which has not passed unnoticed by economists (Hirsheirfer, 1977) says simply that what is good for the species today will be good for the advantaged economy tomorrow (or vice versa?).[2]

Now that I have "created" for you, or reminded you of, all these problems with science and values and economies, what's to be done? Certainly, there are very promising and vital trends in contemporary psychology--revolutionizing conceptualizations of the emerging properties of the interaction between the biological processes and human thought, language, and culture (the new volume by Kessler and McKenna (1978) is but one example). And the systematic analyses of the biased uses of biological constructs in psychology needs to continue. Further, however, I would propose that we scientists begin to deal with values in a more direct and scholarly fashion. We cannot take values out of science, but (1) we can seriously examine our own values and clarify how they are being expressed in our research and theories; (2) we can study interdisciplinary concepts of social equality and justice; and (3) we can play a more conscious, active role to interface our research and theorizing with social policy implications.

I think that the step of interdisciplinary study of the concepts of values, social equality, and justice (Bowie & Simon, 1977) is a crucial one. Aside from understanding the uses and definitions of the concept of equality, one discovers that the concepts of equality and justice often collide, and when they do, theories of justice often take precedence over principles of equality (Barber, 1975; Cohen, Nagel, & Scanlon, 1977; English, 1978; Ginsberg, 1977; Goldman, 1977; Wallace, 1976).

Rawl's (1971) theory of justice is currently having considerable impact upon many disciplines outside of philosophy and political science, although the theory has received no noticeable attention from psychologists. Rawl's theory attempts to set down some principles of justice, or rules for the distribution of resources not dependent upon evolutionary processes. His beginning point is with a question: "if you were about to be born into a society to

distribute resources," i.e., what rules for distributing resources would you like to see followed in your new society? Rawls reasoned that you, indeed most of us, would choose his two principles of justice: (a) the equal liberty rule which state that primary goods (civil opportunities, power, income, and wealth) are generally to be distributed equally; and (2) the difference principle which state that when inequalities exist (whether produced by biological or social advantages), no advantage may be gained by the most advantaged group if such a gain makes the least advantaged even more disadvantaged. In other words, primary goods are distributed equally, or the advantaged group may increase its gains unless by doing so, the worst off group is made even more disadvantaged. Distribution decisions, then, should maximize the position of the most disadvantaged group.

So, of what use might such a theory of justice be to us in psychology? First, though it may not be obvious from this brief introduction, the theory is rich with research questions. It provides a framework for the study of human values, and many voices have been urging psychology to turn its attention to the study of human values. Sherif (1977) proposed that "traits" are better defined not as qualities of the person but as adverbs or evaluations of social interactions. What are the assertive, aggressive, submissive, nurturing, person has are "highly charged convictions or beliefs about what kind of a person she or he wants to be relative to others in certain activities and circumstances" (p. 38). Thus we need to study the individual's self-system which is linked to established relationships--conceptual and motivational--with other persons, social values, groups, and institutions.

Rawl's theory, in fact, defines a rather complex psychology of human behavior to "check out": it pre-supposes that liberty and self-respect are the ultimate motivating forces in human decision-making, that humans are rational, selfish (although the altruistic view is ultimately ego-protective), must be motivated to work by incentives, and are prone to a particular psychology of risk-taking. In fact, some (Barber, 1978) have questioned whether Rawl's rules of decision-making are derived from the principles of rationality or from a low-risk psychology, a particular style of planning in the face of uncertainty.

Secondly, such theories of justice provide us with some guidelines for making decisions about which research topics should be researched, which research topics should have priorities over others, and what kinds of research and theory development might even be curtailed in the interest of social welfare (Sinsheimer, 1978). I suppose that the Rawlsian researcher would ask herself or himself the question: "What research can I do which would benefit the most disadvantaged group in our society?" Or (to put it another way), the research and theory development proposed would pass the Rawlsian review board if in benefiting the most advantaged group, the most disadvantaged group would not be place in a more disadvantaged position.

We can and do make choices in our theory and research development. Considerations of justice can be legitimately incorporated into the process--do we build "bigger and better" IQ tests? tests of achievement? tests of biological differences? norms of human development? The dialectic seems at work again: sociobiology presents a scientific theory which prescribes and promotes a particular set of values for our society; Rawls presents a theory of justice (from which an antithetical set of values could be derived) for evaluating scientific theory.

Finally, such theories of justice may be useful in defining ways for us to think about social problems and in providing a framework for deriving social policy recommendations--presupposing, of course, that psychologists are going to play a more active, conscious role in the social policy process of science.

I am well aware that an open, public involvement with social policy, deliberate efforts to interface one's scientific research and theory with social policy violates the cardinal rule of "objectivity" in science. But such a position may be defended by simply noting that what we might lose, from highly-suspect "objectivity" might be gained from a fair and just pursuit of knowledge (Sherif, 1977). Further, as individual scientists, we must be handmaidens to someone's values and social policies, the values and policies might as well be our own! We can shape, as well as "prop up," social idealogy (Tangri, 1977); our efforts might as well be active and conscious, as opposed to passive and nonconscious (Bem & Bem, 1971)

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Footnotes

[1]This report was preparted while I was a summer "fellow" at the Center for Advanced Study in the Behavioral Sciences. I want to thank a number of colleagues at the Center--Kathleen Adams, Mike Coray, Masako Darrough, Nancy Hauserman, Eleanor Levine, Yolanda Moses, Margaret O'Mara, Sandra Schultz, and Peter Wentz, with special thanks to Bob Simon and Carolyn Merchant--for their helpful instructions and suggestions.

[2]Of course, the technological-social-economy models of anthropology (Harris, 1968), propose that race and sex differences are rooted in culture, not biology. Models in which social structures (class structures) and male privilege are viewed as critical in producing race and sex differences (Jaggar & Rothenberg, 1978) appear promising for us in psychology for they provide tools for the analyses of the relationships between groups and classes of people (Sherif, 1977).